A Survey of American Honeys

1534

Number two in a series of ten articles on the different honeys of America.

AS A RESULT of our comprehensive analytical survey of honeys from the United States, we have complete data on 504 samples of honey and honeydew from 47 of the 50 States. These are from 83 floral types and 93 blends of known composition, as well as other blends characterized by area of production and time of harvest. By examination of the values found for the individual samples, we have obtained information on how the many different kinds of honey compare with each other.

It is well known that various honeys have certain characteristics - tupelo and sage honey are non-granulating, tulip tree honey is dark, cotton honey granulates quickly, and so on. In the table are shown the characteristics of 74 floral types of honey and 4 honeydew types, compared with the average composition of honey, which was given in the first article in this series. In this table a plus sign means that the honey is higher than the average in that particular characteristic. A minus sign means that it is lower than the average. If no mark is given, the honey is near the average for that particular characteristic. In the case of diastase, an "n" means that not enough data were available to give an estimate. We have not included moisture content in this table because we do not feel that it is a characteristic of the floral type of honey, but rather depends on other factors. No honey type was listed as minus for granulating tendency unless it was substantially non-granulating in our test. Those marked plus are particularly prone to granulate. Honeys not marked are average in granulating tendency under the conditions we used —in six months storage after heating to liquefy, they would deposit thin layers (to ¼") or clumps of crystals in a jar.

Where a plus is marked for pH it indicates a honey type showing less active acidity than the average. As an example of reading the table, alfalfa honey granulates more, is higher in dextrose, sucrose and lactone/free acid ratio than the average honey. It is lower than the average honey in its content of higher sugars, undetermined material, ash, and nitrogen. It is near the average values in all of the other characteristics.

For the more important and more common honey types, this table uses the average of many samples. For many of the other more unusual or locally-produced floral sources, there may have been only one or two samples analyzed.

This table provides a quick way to compare many of the more important honey types one with another and to find floral types of honey with the desired physical and chemical characteristics for any particular purpose.

1/ This is one in a series of articles describing a large-scale study of the composition of honeys from over the United States. Complete data interpretation and conclusions will appear in a forthcoming Department of Agriculture publication.

TABLE 1. Characterization of Various Floral Types of Honey

	Color	Granulation	Levulose	Dextrose	Sucrose	Maltose	Higher Sugars	Undetermined	pH	Free Acidity	Lactone	Total Acidity	Lactone/Free Acid	Ash	Nitrogen	Diastase
Alfalfa		+		+	+		-	-					+	-	-	
Aster	+	-			-	+			+		-		-	+		n[1]
Athel Tree	+	+	+	+			-							+	+	n
Bamboo, Japanese			-			+										n
Basswood														-	-	
Bergamot	+		+								+	+				n
Blackberry	+	-		-		+	+		+				-	+		-
Blueberry	+					+			+							n
Blue Curls		+	-	+					-		+					n
Bluevine			-	-												n
Boneset	+		+	-								+			+	
Buckwheat	+		-		+					+		+				+
Canteloupe		+		+							+	+			-	-
Cape vine			-				-								-	
Chinquapin	+	-	-	-		+	+	+	+		-		-			
Clover, crimson	-								-					-	-	
Clover, hubam	-			+			-							-	-	n
Clover, sweet yellow	-		+		+					-		+	+	-	-	n
Coralvine	+	-	-	-			+	+	+	+		+		+	+	n
Cotton		+		+		-	-		+					+		
Cranberry	+	-	-	-			+	+	+					+		
Gallberry		-	+						+						-	
Goldenrod				+	-		-		+		-		-			+
Grape	+	-	-	-		+						+			+	n
Holly	+	-		-		+	+		+							n
Horsemint				+			-		-		+	+	+			
Locust		-	+	-						-		-		-	-	-
Manzanita		+	-	+						-		-			-	n
Marigold				+			-		-		+		+	-		+
Mesquite		+	+	+			-				-				-	n

Table 1 (cont.)

	Color	Granulation	Levulose	Dextrose	Sucrose	Maltose	Higher Sugars	Undetermined	pH	Free Acidity	Lactone	Total Acidity	Lactone/Free Acid	Ash	Nitrogen	Diastase
Mexican clover	+	-								+		+				+
Mint	-			+	+			-							-	
Mountain laurel	-	-	-	-	-	+	+	+	+	-	-	-	-			+
Mustard	+	-		-		+			+					+	+	
Orange									-		+		+	-		n
Orange-grapefruit					+									-	-	-
Palmetto		-				+			+	-		-			-	-
Palmetto, saw	+										+	+	+	+	-	-
Pepperbush	+		-					+			+			+		-
Peppermint	+		+						+				-	+		n
Peppervine	+	-	-	-		+									-	-
Poison oak		-		-		+	+	+						+	+	n
Privet	+						-		-	+	+	+				n
Prune	+	+	-	-		+	-		+	-	-	-	-	+	+	n
Raspberry	+	-	-	-			+					+		+	+	-
Rhododendron	-	-	-	-		+		+	+	-	-	-			-	+
Sage		-	+	-												n
Snowbrush	+									+		+				+
Sourwood		-		-		+	+		+		-	-			-	
Spanish needle	+	-	+	-							+	+	+	+	+	+
Spearmint			+											+		n
Sumac	+		-	-			+	+	+	+		+	-	+	+	+
Sunflower	+	-						-			+	+			+	-
Thistle, blue	-		-							-		-		-		n
Thistle, star			-		+		+		-		+	+	+			+
Thyme	+								+					+	+	n
Titi	+						-		+	-	-	-	-	+	-	
Titi, spring	+	-	+	-				+	+	-	-	-	-			n
Trefoil	-											-		-	-	-
Tulip tree	+	-	-	-		+	+	+	+	+	-	+	-	+	+	

Table 1 (cont.)

	Color	Granulation	Levulose	Dextrose	Sucrose	Maltose	Higher Sugars	Undetermined	pH	Free Acidity	Lactone	Total Acidity	Lactone/Free Acid	Ash	Nitrogen	Diastase
Tupelo		-	+	-					-		+		+	-		
Alfalfa honeydew	+	+	-							+	-	+	-	+	+	n
Cedar honeydew	+	-	-	-		-	+	+	+	+		+	-	+		n
Hickory honeydew	+	-	-	-	+		+	+	+	+	-	+	-	+		n
Oak honeydew	+	-	-	-		+		+	+	+		+	-	+	+	n

Near average in all above characteristics except diastase, which differs as shown in parentheses: Wild buckwheat (+); clover, alsike; clover, sweet; clover, white; crotalaria (-); cucumber; eucalyptus; fireweed; heartsease (m); palmetto, cabbage; pentstemon (m); purple loosestrife (m); rosinweed (+); vetch; vetch hairy (-).

1/ "n" means insufficient data were available to allow valid comparison.